Water-Data Report 2008

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

Potomac Basin
North Branch Potomac Subbasin

LOCATION.--Lat 39°37'18.5", long 78°46'24.3" referenced to North American Datum of 1983, Allegany County, MD, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi south of Cumberland, 2.1 mi downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--877 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.—No estimated daily discharges. Records good except for those above 11,000 ft^3/s, which are fair. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi upstream from station. Low-flow regulation since December 1950 by Savage River Reservoir, 39 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 43 mi upstream from station, since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is downstream from station. Diversion to Chesapeake and Ohio Canal prior to 1935. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft, June 1, 1889, discharge, about 89,000 ft^3/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft^3/s, Mar. 5, gage height, 11.71 ft; minimum discharge, 267 ft^3/s, Oct. 7, 8, 13, 16-19, 21-23.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	286	374	464	1,900	1,340	1,410	948	2,540	2,950	547	506	566
2	284	363	471	1,800	1,890	1,400	921	2,100	2,710	525	875	389
3	281	358	878	1,350	1,750	1,340	807	2,140	2,010	512	1,210	378
4	278	356	879	1,220	1,870	1,900	879	3,130	2,670	598	724	373
5	272	353	745	1,050	2,340	9,760	932	2,540	5,330	650	507	368
6	272	327	662	1,010	3,960	7,300	880	2,350	4,130	792	497	370
7	272	304	583	1,060	5,260	6,370	929	1,970	2,220	754	478	369
8	536	302	586	1,380	4,760	5,560	907	1,740	1,580	1,110	466	364
9	580	301	1,000	1,400	4,120	3,200	890	1,670	1,220	1,230	459	388
10	333	306	2,850	1,380	3,710	2,650	883	4,040	1,080	1,170	450	391
11	274	301	3,860	2,470	2,810	2,300	876	5,840	996	562	440	377
12	273	340	3,460	3,570	2,480	2,070	936	10,100	925	524	391	391
13	286	405	3,840	3,370	2,390	1,780	887	7,830	750	517	375	464
14	1,140	393	5,410	2,940	2,090	1,660	847	4,470	1,000	514	375	439
15	470	527	3,990	2,600	1,750	1,760	746	3,570	987	500	372	394
16	284	570	3,820	2,080	1,570	1,650	709	4,580	804	494	370	377
17	527	523	3,580	1,970	1,560	1,520	690	6,400	1,020	485	363	367
18	309	488	2,830	1,780	2,110	1,550	667	3,880	1,540	467	362	363
19	402	450	2,580	1,410	2,340	2,470	669	4,490	1,160	457	357	359
20	316	428	2,060	1,290	2,070	3,940	1,880	4,530	688	456	358	387
21	272	419	1,930	1,100	1,970	4,050	4,760	4,610	619	479	366	1,190
22	267	412	1,550	1,130	1,750	3,530	4,670	4,320	639	564	371	499
23	269	404	1,680	1,010	1,670	2,910	4,510	4,020	817	651	369	350
24	334	391	2,560	864	1,570	2,350	3,330	2,050	638	613	367	345
25	443	384	2,270	873	1,510	2,130	2,300	1,730	605	508	366	342
26	442	386	2,020	856	1,480	1,720	2,380	1,530	547	485	362	335
27	557	428	1,950	818	1,680	1,650	2,590	1,490	547	480	361	417
28	480	452	1,850	793	1,520	1,550	3,070	1,640	536	469	752	660
29	390	470	2,140	795	1,410	1,250	3,650	1,510	563	425	873	499
30	358	478	1,990	1,110	---	1,040	2,890	1,370	559	421	518	407
31	372	---	1,960	1,170	---	971	---	1,910	---	500	498	---
Total	11,859	11,993	66,448	47,549	66,730	84,741	52,033	106,090	41,840	18,459	15,138	12,918
Mean	383	400	2,143	1,534	2,301	2,734	1,734	3,422	1,395	595	488	431
Max	1,140	570	5,410	3,570	5,260	9,760	4,760	10,100	5,330	1,230	1,210	1,190
Min	267	301	464	793	1,340	971	667	1,370	536	421	357	335
Cfsm	0.44	0.46	2.44	1.75	2.62	3.12	1.98	3.90	1.59	0.68	0.56	0.49
In.	0.50	0.51	2.82	2.02	2.83	3.59	2.21	4.50	1.77	0.78	0.64	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	587	817	1,302	1,582	1,957	2,885	2,347	1,744	933	537	469	492
Max	3,791	5,350	4,652	5,115	4,410	8,763	5,866	4,070	3,613	2,270	2,152	4,117
(WY)	(1943)	(1986)	(1973)	(1937)	(1998)	(1936)	(1993)	(1996)	(2003)	(1989)	(1996)	(1996)
Min	28.9	44.8	134	269	393	757	705	374	209	89.7	57.7	40.3
(WY)	(1931)	(1931)	(1931)	(1940)	(1934)	(2006)	(1995)	(1934)	(1965)	(1930)	(1930)	(1932)

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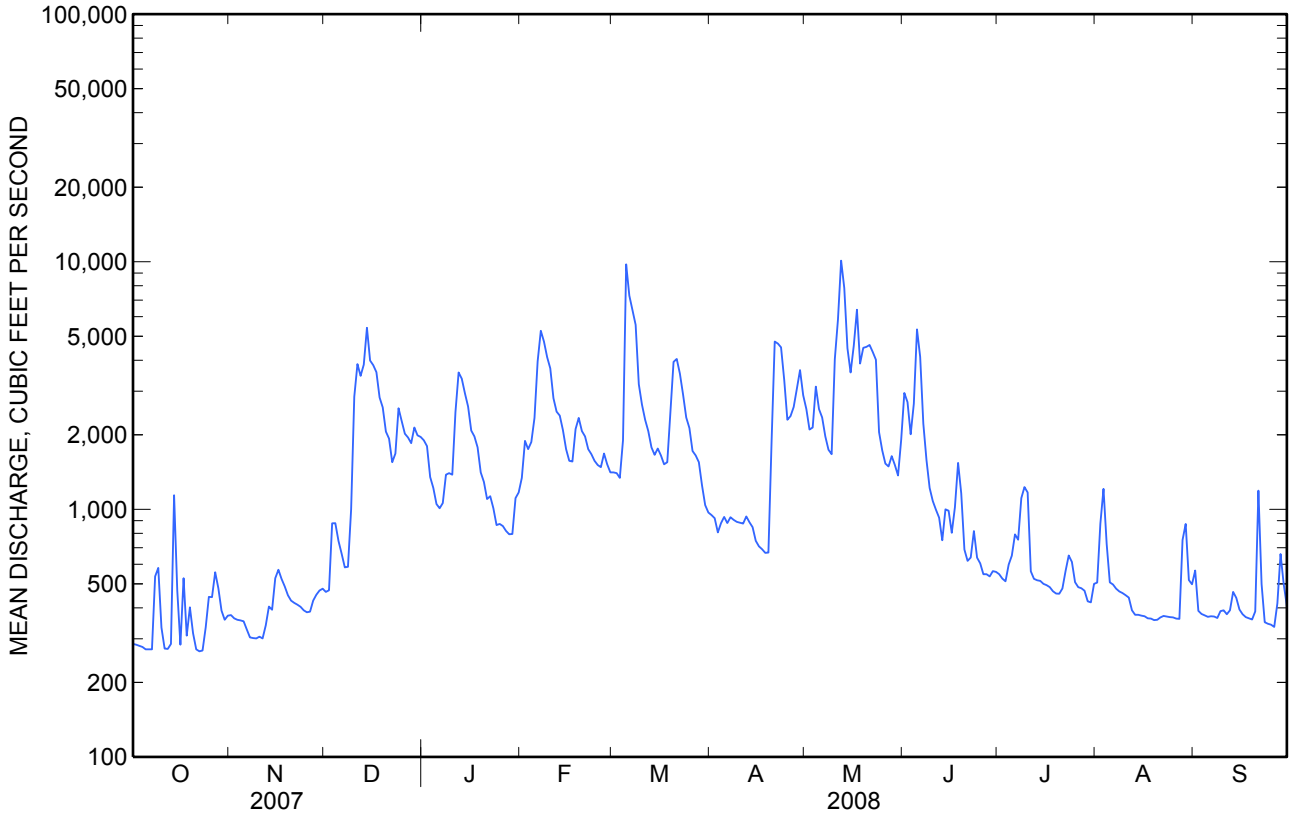
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1929 - 2008	
Annual total	402,445		535,798			
Annual mean	1,103		1,464		1,302	
Annual mean‡	1,100		1,457		1,303	
Highest annual mean					2,390	1996
Lowest annual mean					632	1969
Highest daily mean	7,480	Apr 16	10,100	May 12	47,400	Mar 18, 1936
Lowest daily mean	267	Jul 23[a]	267	Oct 22	13	Sep 21, 1932 [b]
Annual seven-day minimum	276	Jul 17	278	Oct 1	16	Sep 20, 1932
Maximum peak flow			12,800	Mar 5	[c]88,200	Mar 17, 1936
Maximum peak stage			11.71	Mar 5	29.10	Mar 17, 1936
Instantaneous low flow			267	Oct 7[d]	12	Sep 22, 1932
Annual runoff (cfsm)	1.26		1.67		1.49	
Annual runoff (cfsm) ‡	1.25		1.66		1.49	
Annual runoff (inches)	17.07		22.73		20.18	
Annual runoff (inches) ‡	17.00		22.60		20.28	
10 percent exceeds	2,900		3,570		3,020	
50 percent exceeds	494		880		688	
90 percent exceeds	297		360		183	

‡ Adjusted for change in reservoir contents since October 1949.

[a] July 23, Oct 22.

[b] Sept. 21-24, 1932.

[c] From rating curve extended above 33,000 ft³/s on basis of slope-area measurement of peak flow.

[d] Oct. 7, 8, 13, 16-19, 21-23.